



Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A detector for detecting at least one organophosphorus or carbamate compound comprising the enzyme acetylcholinesterase immobilized in a single sol-gel ~~or a membrane~~, wherein the enzyme acetylcholinesterase is inhibited by at least one of the organophosphorus or carbamate compounds.

2. (Withdrawn) A method for detecting at least one organophosphorus or carbamate compound in a sample comprising contacting said sample with enzyme acetylcholinesterase immobilized in a sol-gel or a membrane, wherein the enzyme is inhibited by at least one of the organophosphorus or carbamate compounds.

3. (Withdrawn) The method according to claim 2 wherein the sample is contacted with acetylcholinesterase immobilized in a sol-gel or a membrane wherein the pH ranges from about 5.95 to about 11.52.

4. (Withdrawn) The method according to claim 2 wherein the compound detected is an organophosphorus compound

and 1% bromine is added to the organophosphorus compound prior to addition to the immobilized enzyme.

5. (Withdrawn) The method according to claim 2 wherein the enzyme is immobilized in a sol-gel.

6. (Withdrawn) The method according to claim 2 wherein the enzyme is immobilized in a membrane.

7. (Currently Amended) A detector for detecting at least one compound selected from the group consisting of organophosphorus and carbamate compounds which are inhibitors for the enzyme acetylcholinesterase, wherein the acetylcholinesterase is immobilized in a sol-gel or in a membrane, wherein said sol-gel or said membrane is packaged so that when ~~a test is conducted~~ the package is opened the acetylcholinesterase enzyme is exposed to ambient conditions so that the test is conducted.

8. (Currently Amended) The detector according to claim 7 wherein the acetylcholinesterase enzyme is immobilized in a sol-gel.

9. (Currently Amended) The detector according to claim 7 wherein the acetylcholinesterase enzyme is immobilized in a membrane.

10. (Currently Amended) The detector according to claim 7 wherein the package comprises a semipermeable polyethylene bag which is opened ~~after exposure of~~ to expose the acetylcholinesterase enzyme to the inhibitor to commence the enzyme assay.

11. (New) The detector according to claim 1 wherein the sol-gel is glass prepared from tetramethylorthosilicate.

12. (New) The detector according to claim 11 wherein the acetylcholinesterase is stabilized with a sugar.

13. (New) The detector according to claim 12 wherein the sugar is trehalose.

14. (New) The detector according to claim 1 wherein the sol-gel is contained in a tube.

15. (New) The detector according to claim 1 wherein the sol-gel particles are from 230-400 mesh.

16. (New) A detector for detecting at least one organophosphorus or carbamate compound consisting of acetylcholinesterase immobilized in a sol-gel or a membrane, wherein the acetylcholinesterase is inhibited by at least one of the organophosphorus or carbamate compounds.

17. (New) The detector according to claim 16
wherein the acetylcholinesterase is immobilized in a sol-gel.

18. (New) The detector according to claim 16
wherein the acetylcholinesterase is immobilized on a membrane.